

Amendments to the Claims

Please amend claims 1, 59, 60 and 62 as follows:

B1

1. (Currently Amended) An apparatus for delivering a closure element into a passage communicating with an opening into a body lumen, comprising:

- an elongate member comprising proximal and distal ends;
- an annular clip carried by the elongate member for closing the opening;
- a locator member coupled to the elongate member, the locator member having a distal portion extending distally beyond the distal end of the elongate member; ~~and~~
- one or more positioning elements on the distal portion of the locator member, the positioning elements being selectively expandable between a substantially axial collapsed configuration and a substantially transverse expanded configuration; and
- a housing slidably disposed on the exterior of the elongate member, the housing configured for housing the clip and releasably holding the clip, the housing being actuable for advancing the clip distally towards the distal end of the elongate member.

2. (Original) The apparatus of claim 1, wherein the positioning elements comprise splines configured for expanding substantially transversely with respect to a longitudinal axis of the elongate member.

3. (Original) The apparatus of claim 2, wherein the one or more positioning elements comprise a plurality of substantially flexible splines.

4. (Original) The apparatus of claim 2, wherein the one or more positioning

elements comprise a pair of splines disposed opposite one another about the distal portion.

5. (Original) The apparatus of claim 2, wherein each spline has a first fixed end and a second movable end, the second end being axially movable towards the first end to cause an intermediate region of the spline to expand transversely outward, thereby defining the substantially transverse expanded configuration.

6. (Original) The apparatus of claim 5, wherein the locator member comprises a control member having a distal end coupled to the second end of each spline, the control member being movable axially with respect to the elongate member to selectively expand the splines between the collapsed configuration and the expanded configuration.

7. (Original) The apparatus of claim 1, further comprising an actuator coupled to the locator member, the actuator configured for selectively expanding the positioning elements from the collapsed configuration to the expanded configuration.

8. (Original) The apparatus of claim 7, wherein the actuator is configured for selectively expanding the positioning elements to one of a plurality of expanded diameters.

9. (Original) The apparatus of claim 7, wherein the actuator is configured for selectively expanding the positioning elements to a desired angle with respect to a longitudinal axis of the locator member.

10. (Original) The apparatus of claim 9, wherein opposing positioning elements may be expanded to complementary angles with respect to the longitudinal axis.

11. (Cancelled)

12. (Withdrawn) The apparatus of claim 11, wherein the closure element comprises a clip deliverable from the elongate member, the clip configured for engaging tissue adjacent the opening.

13. (Currently Amended) The apparatus of claim ~~11~~1, further comprising an actuator coupled to the housing, the actuator configured for advancing the housing distally to deploy the clip therefrom.

14. (Original) The apparatus of claim 13, wherein the actuator is further configured for automatically collapsing the positioning elements to the collapsed configuration upon advancement of the housing.

15. (Original) The apparatus of claim 13, further comprising a spring mechanism for biasing the housing distally upon activation of the actuator.

16. (Original) The apparatus of claim 1, wherein the elongate member comprises an introducer sheath including a lumen therethrough, and wherein the locator member is removably insertable into the lumen, the distal portion of the locator member having a size for

insertion through the lumen when the positioning members are in the collapsed configuration.

17. (Original) The apparatus of claim 16, wherein the sheath and the locator member include cooperating detents for substantially securing the locator member axially with respect to the sheath when the locator member is fully inserted into the sheath.

18. (Original) The apparatus of claim 16, wherein the locator member comprises a substantially rigid sleeve extending beyond the distal end of the sheath, the positioning elements being deployable axially from within the sleeve.

19. (Withdrawn) An apparatus for delivering a closure element into a passage communicating with an opening into a body lumen, comprising:

BT

- an elongate member comprising proximal and distal ends;
- a housing slidably coupled to the elongate member, the housing configured for releasably holding a closure device;
- a locator member coupled to the elongate member, the locator member having a distal portion extending distally beyond the distal end of the sheath when the locator member is fully inserted therein; and
- one or more positioning elements on the distal portion of the locator member, the positioning elements being selectively expandable between a substantially axial collapsed configuration and a substantially transverse expanded configuration.

20. (Withdrawn) The apparatus of claim 19, wherein the elongate member and the

locator member include cooperating detents for substantially securing the locator member axially with respect to the elongate member.

21. (Withdrawn) The apparatus of claim 19, further comprising an actuator coupled to the housing, the actuator configured for advancing the housing distally to deploy a closure element therefrom.

22. (Withdrawn) The apparatus of claim 21, wherein the actuator is further configured for automatically collapsing the positioning elements to the collapsed configuration upon advancement of the housing.

23. (Withdrawn) The apparatus of claim 21, further comprising a spring mechanism for biasing the housing distally upon activation of the actuator.

24. (Withdrawn) The apparatus of claim 19, wherein each positioning element comprises a spline having a first fixed end and a second movable end, the second end being axially movable towards the first end to cause an intermediate region of the spline to expand transversely outward, thereby defining the substantially transverse expanded configuration.

25. (Withdrawn) The apparatus of claim 19, further comprising an actuator coupled to the locator member, the actuator configured for selectively expanding the positioning elements from the collapsed configuration to the expanded configuration.

26. (Withdrawn) The apparatus of claim 25, wherein the actuator is configured for selectively expanding the positioning elements to one of a plurality of expanded diameters.

27. (Withdrawn) The apparatus of claim 19, wherein the elongate member comprises an introducer sheath, and wherein the locator member is insertable into a lumen of the sheath.

28. (Withdrawn) A method for delivering a closure element into a passage communicating with an opening in a wall of a body lumen, the method comprising:

B1  
positioning an elongate member through a patient's skin towards the body lumen via the passage, the elongate member including a lumen extending between its proximal and distal ends; and

coupling a locator to the elongate member until a distal portion of the locator extends beyond the distal end of the elongate member and into the body lumen;

expanding one or more positioning elements on the distal portion of the locator from a collapsed configuration to an expanded configuration;

manipulating the elongate member and locator from the body lumen until the positioning elements in their expanded configuration contact the wall of the body lumen, thereby providing a tactile indication of a location of the distal end of the elongate member; and

delivering a closure element via the elongate member into the passage.

29. (Withdrawn) The method of claim 28, further comprising withdrawing the elongate member and locator from the body lumen and opening, leaving the closure element to

substantially close the opening.

30. (Withdrawn) The method of claim 28, wherein the elongate member comprises an introducer sheath, and wherein the method further comprises introducing one or instruments through the lumen of the sheath into the body lumen.

31. (Withdrawn) The method of claim 30, further comprising performing a diagnostic or therapeutic procedure using the one or more instruments at a location accessed via the body lumen.

B7  
32. (Withdrawn) The method of claim 31, wherein the body lumen comprises a blood vessel, and wherein the procedure comprises at least one of angioplasty, atherectomy, stent delivery, delivery of a therapeutic agent, and tissue ablation.

33. (Withdrawn) The method of claim 28, wherein the elongate member comprises a tubular body into which the locator is inserted, and wherein the locator is axially fixed with respect to the tubular body when the locator is fully inserted into the tubular body.

34. (Withdrawn) The method of claim 28, wherein the step of delivering a closure device comprises advancing a housing distally along an exterior of the elongate member, the housing having the closure device detachably held thereto.

35. (Withdrawn) The method of claim 34, wherein the housing is movable between

a proximal position and a distal position, the distal position being a predetermined distance from the positioning elements in their expanded configuration.

36. (Withdrawn) The method of claim 35, wherein the positioning elements automatically return to the collapsed configuration when the housing is advanced to the distal position.

37. (Withdrawn) The method of claim 28, further comprising collapsing the one or more positioning elements to the collapsed configuration before withdrawing the elongate member and locator.

38. (Withdrawn) The method of claim 28, wherein the manipulating step comprises at least partially withdrawing the elongate member and locator from within the body lumen.

39. (Withdrawn) The method of claim 28, wherein the one or more positioning elements comprise a pair of opposing splines on the distal portion, the splines being expandable from a substantially axial collapsed configuration to a substantially transverse expanded configuration.

40. (Withdrawn) An apparatus for delivering a closure device, comprising:  
an annular housing comprising a cavity, the housing comprising a hole therethrough defining a longitudinal axis;

a closure element disposed within the cavity;



an actuator coupled to the housing, the actuator comprising a control wire for moving the housing along the longitudinal axis away from the actuator.

41. (Withdrawn) The apparatus of claim 40, wherein the actuator comprises a connector for attached the actuator to an elongate member.

42. (Withdrawn) The apparatus of claim 41, further comprising an elongate member insertable into the hole in the housing, whereby the housing may slide along an exterior of the elongate member.

43. (Withdrawn) The apparatus of claim 42, wherein the elongate member comprises an introducer sheath.

44. (Withdrawn) The apparatus of claim 42, wherein the elongate member comprises a connector on one end for mating with the connector on the actuator.

45. (Withdrawn) The apparatus of claim 40, wherein the cavity is disposed within an end of the housing away from the actuator.

46. (Previously presented) An apparatus for delivering a closure element into a passage communicating with an opening into a body lumen, comprising:

an elongate member comprising proximal and distal ends;

a housing slidable along an exterior of the elongate member, the housing configured for

releasably holding a closure element therein;

a locator member comprising a distal portion extending distally beyond the distal end of the elongate member; and

one or more positioning elements on the distal portion of the locator member, the positioning elements being selectively expandable between a substantially axial collapsed configuration and a substantially transverse expanded configuration.

47. (Previously presented) The apparatus of claim 46, wherein the elongate member and the locator member include cooperating detents for substantially securing the locator member axially with respect to the elongate member.

B1  
48. (Previously presented) The apparatus of claim 46, further comprising an actuator coupled to the housing, the actuator configured for advancing the housing distally to deploy a closure element therefrom.

49. (Previously presented) The apparatus of claim 48, wherein the actuator is further configured for automatically collapsing the positioning elements to the collapsed configuration upon advancement of the housing.

50. (Previously presented) The apparatus of claim 48, further comprising a spring mechanism for biasing the housing distally upon activating the actuator.

51. (Previously presented) The apparatus of claim 46, wherein each positioning

element comprises a spline having a first fixed end and a second movable end, the second end being axially movable towards the first end to cause an intermediate region of the spline to expand transversely outward, thereby defining the substantially transverse expanded configuration.

52. (Previously presented) The apparatus of claim 46, further comprising an actuator coupled to the locator member, the actuator configured for selectively expanding the positioning elements from the collapsed configuration to the expanded configuration.

B1  
53. (Previously presented) The apparatus of claim 52, wherein the actuator is configured for selectively expanding the positioning elements to one of a plurality of expanded diameters.

54. (Previously presented) The apparatus of claim 46, wherein the elongate member comprises an introducer sheath, and wherein the locator member is insertable into a lumen of the sheath.

55. (Previously Presented) An apparatus for delivering a closure element into a passage communicating with an opening into a body lumen, comprising:

a tubular member comprising proximal and distal ends;

an annular housing overlying the tubular member and slidable towards the distal end of the tubular member;

an annular clip releasably carried within the housing; and

a locator member within the tubular member, the locator member having a distal portion extending distally beyond the distal end of the tubular member, the distal portion comprising a plurality of positioning elements, the positioning elements being selectively expandable between a substantially axial collapsed configuration and a substantially transverse expanded configuration.

56. (Previously presented) The apparatus of claim 55, wherein the locator member is insertable into the tubular member, the locator member and tubular member comprising cooperating detents for substantially securing the locator member with respect to the tubular member.

B1  
57. (Previously presented) The apparatus of claim 55, further comprising an actuator coupled to the housing for advancing the housing and the closure element therein towards the distal end of the tubular member for deploying the closure element from the housing.

58. (Previously presented) The apparatus of claim 57, wherein the actuator is configured for automatically collapsing the positioning elements when the housing reaches a distal position for deploying the closure element.

59. (Currently Amended) The apparatus of claim 58, wherein the actuator is configured for retracting the positioning elements into the tubular member when the closure element is deployed ~~or~~ from the housing.

60. (Currently Amended) A method for delivering a closure element into a passage communicating with an opening in a wall of a body lumen, the method comprising:

positioning an elongate member through a patient's skin towards the body lumen via the passage, the elongate member including a lumen extending between its proximal and distal ends; and

providing a locator comprising a distal portion extending beyond the distal end of the elongate member and into the body lumen;

expanding one or more positioning elements on the distal portion of the locator from a collapsed configuration to an expanded configuration;

withdrawing the elongate member and locator partially until the positioning elements in their expanded configuration contact the wall of the body lumen, thereby providing a tactile indication of a location of the distal end of the elongate member; and

delivering a clip located in a housing slidably mounted on the elongate member via the elongate member into the passage by advancing the housing distally along the exterior of the elongate member, the housing releasably holding the clip therein.

61. (Previously presented) The method of claim 60, further comprising withdrawing the elongate member and locator from the body lumen and opening, leaving the clip to substantially close the opening.

62. (Currently Amended) The method of claim 60, wherein the elongate member comprises an introducer sheath, and wherein the method further comprises introducing one or more instruments through the lumen of the sheath into the body lumen.

63. (Previously presented) The method of claim 62, further comprising performing a diagnostic or therapeutic procedure using the one or more instruments at a location accessed via the body lumen.

64. (Previously presented) The method of claim 63, wherein the body lumen comprises a blood vessel, and wherein the procedure comprises at least one of angioplasty, atherectomy, stent delivery, delivery of a therapeutic agent, and tissue ablation.

B7 65. (Previously presented) The method of claim 60, wherein the elongate member comprises a tubular body, wherein the locator is inserted into the tubular body and is axially fixed with respect to the tubular body when the locator is fully inserted into the tubular body.

66. (Cancelled)

67. (Previously presented) The method of claim 66, wherein the housing is movable between a proximal position and a distal position, the distal position being a predetermined distance from the positioning elements in their expanded configuration.

68. (Previously presented) The method of claim 67, wherein the positioning elements automatically return to the collapsed configuration when the housing is advanced to the distal position.

69. (Previously presented) The method of claim 60, further comprising collapsing the one or more positioning elements to the collapsed configuration before withdrawing the elongate member and locator.

70. (Previously presented) The method of claim 60, wherein the housing comprising a cavity carrying the clip therein, and wherein the delivering step comprises deploying the clip from the cavity.

B1  
71. (Previously presented) The method of claim 60, wherein the one or more positioning elements comprise a pair of opposing splines on the distal portion, the splines being expandable from a substantially axial collapsed configuration to a substantially transverse expanded configuration.